

A. Laboratory Safety Videos from the Howard Hughes Medical Institutes

1. Practicing Safe Science, 29 minutes

Safety instruction is presented in a lively and challenging way. Chemical, physical, radiological, and biological hazards in the molecular biology laboratory are addressed through reenactments of actual laboratory accidents and demonstrations of good safety techniques. A significant message in the video is the importance of good work habits and consideration for others.

Catalog Number: 2.1

2. Safety in the Research Laboratory.

This nine-part video series gives guidance on controlling the hazards associated with common activities conducted in the modern biology laboratory. Instructions in safe techniques that can help researchers protect themselves from these hazards are described.

Catalog Numbers: 2.3-2.5

a. Laboratory Safety Series, Set One contains three programs

- i. **Radionuclide Hazards, 12 minutes**—Features the protocol random primer labeling for southern hybridization. The types of emission and associated hazards of some of the most common radionuclides used in biomedical research, including ³²P, ³H, ³⁵S, ³³P, and ¹²⁵I, are reviewed.
- ii. **Chemical Hazards, 10 minutes**—Features the protocols phenol-chloroform extraction and ethanol precipitation. The video demonstrates the safety principles that apply to working with hazardous chemicals such as phenol, tris hydrochloride, chloroform, sodium acetate, and ethanol.
- iii. **Emergency Response, 12 minutes**—Stresses preparation and training. The video addresses fire safety and emergencies involving personal injuries, and includes demonstrations on the proper cleanup of spills involving radioactive materials, chemicals and biological agents.

Catalog Number: 2.3

b. Laboratory Safety Series, Set Two contains three programs

- i. **Centrifugation Hazards, 9 minutes**—Demonstrates safe centrifugation practices. The video studies the choices critical to safety that researchers face when centrifuging . . . which centrifuge? which rotor? which tubes and adapters? what speed and for how long? What level of containment?
- ii. **Chemical Storage Hazards, 11 minutes**—Reviews the basic principles of safe chemical storage. The video addresses organic and inorganic chemicals, acids, bases, flammables, toxics, caustics, oxidizers, and corrosives and offers guidance for storing chemicals safely in a typical research laboratory.
- iii. **Glassware Washing Hazards, 10 minutes**—Demonstrates skillful glassware washing and sterilization techniques. The video stresses the importance of proper glassware washing to good science, promotes the use of personal protective equipment, and encourages teamwork and good work habits.

Catalog Number: 2.4

e. Laboratory Safety Series, Set Three contains three programs

- i. **Mammalian Cell Culture Hazards, 9 minutes**—Demonstrates skillful tissue culture technique. The video reviews safety precautions that will protect researchers from cell lines,

which may contain infectious agents, and protect cell cultures from contamination, which can ruin the experiment.

- ii. **X-Ray Diffraction Hazards**, 10 minutes—Addresses the potential hazards of x-ray diffraction. The video shows how to safely align the beam manually and via remote control and reviews safe practices for freezing crystals in liquid propane. Basic safety concepts are introduced for using synchrotron x-rays.
- iii. **Assessing Risks of Toxic Chemicals**, 11 minutes—Promotes sensible risk assessment, and stresses planning, mentoring, being determine a chemical's inherent toxicity and provides an understanding of acute versus chronic toxicity. Dose, duration and frequency, and potential routes of exposure are reviewed.

Catalog Number: 2.5

B. Chemical Handling Safety Series from Coastal Training Technologies, VHS format

1. **General Principles**, 17 minutes-- As dangerous as some chemicals are, you can handle them safely by knowing what you are working with, how to handle them and what to do in an emergency. This program covers the basics of chemical handling. Includes information on
 - Hazard identification
 - Personal protection
 - Emergency response

Catalog Number: 1.1

2. **Flammables**, 17 minutes-- Fire is one of the greatest threats to workplace safety. The presence of flammable chemicals only increases this threat. This new video program teaches how to keep flammables under control and ensure a safe and healthy workplace. Includes information on
 - Identification and handling
 - Fire 101
 - Emergency response

Catalog Number: 1.2

3. **Corrosives**, 17 minutes--Corrosives come in many forms and perform a variety of jobs. But it's not always easy to spot them by how they're used. This new video program teaches how to recognize corrosive materials and how to handle and use them safely. Includes information on
 - Identification and classification
 - Solids, liquids and gases
 - Emergency procedures
 - Storage and handling

Catalog Number: 1.3

4. **Solvents**, 17 minutes--Solvents are among the most common chemicals in the workplace, but they can also be hazardous if used improperly. This new video program illustrates how knowledge and preparation, plus good work practices, will let you get the most out of these materials, and help keep you working safely. Includes information on
 - Common solvents
 - Solvent hazards
 - Protecting yourself
 - Accidents and emergencies

Catalog Number: 1.4

- C. **OSHA Laboratory Standard 1910.1450 Retraining**, The Training Network, DVD, x minutes— Although entitled retraining, this DVD provides an orientation to the elements of the OSHA laboratory safety regulations and the requirements of a chemical hygiene program. The DVD comes with a facilitator's guide, which includes a quiz that must be administered to document employee knowledge and should be used to augment lab specific safety education provided by the lab supervisor/manager.

Catalog Number : 3.1

- D. **Bloodborne Pathogens, Know the Risk**, Coastal Training Technologies, DVD, x. minutes--This program is designed provide education on the risks of bloodborne pathogens (BBPs) , this program will discuss the risks, how BBPs are transmitted, what kinds of PPE to use, the importance of hand washing and proper clean up procedures for DRI employees who may encounter blood or body fluids in the work environment or in an emergency medical situation. The accompanying quiz must be administered to document employee knowledge.

Catalog Number : 4.1

- E. **An Introduction to Drilling Safety**, National Drilling Association (NDS), DVD, 24 minutes--The DVD covers the safe practices to use when on sites where drill rigs are used. (Note: The NDA safety booklet, *Drilling Safety Guide*, which augments the information presented in the DVD is available from EH&S in the north or Russ Cullison in the south.)

Catalog Number : 5.1

- F. **Tailgate Safety Talks**--A series of tailgate safety talks are available for use on field projects where daily safety briefings are required. These talks, published by the National Drilling Association cover a wide variety of topics pertinent to field operations and can be used on job sites to provide training on specific jobsite hazards and safety instruction required by many government organizations. See the contents page in the front of the binder for a complete listing of topics available.

Catalog Number : 6.1

- G. **Personal Protective Equipment (PPE)**, VHS, The Training Network, 19:52 minutes.-- This program is designed to satisfy the OSHA training requirements of 29 CFR 1910.132(f) by providing education on the various types of personal protective equipment and how and when to use it. The supervisor is responsible to including information on what project specific PPE is required and informing the affected employees how to obtain it and how to inspect and maintain it. The accompanying quiz must be administered to document employee knowledge.

Catalog Number : 7.1

- H. **Hazard Communication: Your Safety Net**, DVD, Coastal Training Technologies, 14 minutes--This program is designed to satisfy OSHA requirements for providing safety information about the physical and health hazards of chemicals as required by the Hazard Communication Standard, 29 CFR 1910.1200(h). The supervisor is responsible for reviewing project specific chemical hazard information as part of this training. The accompanying quiz must be administered to document employee knowledge.

Catalog Number : 8.1

- I. **Heat Stress**, DVD (Las Vegas)/Video (Reno), The Training Network (Marcom Group product), 12 minutes--Heat stress may occur in more job activities than just those conducted in hot and humid weather. This program provides employees with information on how to recognize situations that may lead to heat stress; steps to take to avoid becoming a victim of heat stress; how to recognize the symptoms of heat related illnesses and what basic first aid response to take for heat related illnesses. The AV program comes with a Leader's Guide that includes training roster form and a quiz the training facilitator can administer to document employee knowledge. A sample training certificate and answers to the quiz are also included in the package.

Catalog Number: 9.1